

AMENDMENTS TO THE CLAIMS

1. (currently amended) A method of automating an interaction between a bidder and an electronic, dynamic pricing online auction hosting service comprising:

a. receiving a registration of a bidder at an online, computer-implemented, Internet-based, bidder-centric bidding automation services application site, wherein said bidder-centric bidding automation services application site is separate from any online auction hosting services site, by creating logon credentials that are used to at least one of authenticate and/or authorize the bidder's use of services of the bidder-centric bidding automation services application site; and receiving at least one auction hosting services site bid-account including logon credentials of at least one online auction hosting services site of associated with the bidder;

b. receiving financial transaction instrument information of the bidder to fund said bidder-centric bidding automation services application site;

c. receiving at least one auction and one of said at least one online auction hosting services sites associated with said at least one auction, and storing said at least one auction in a bid portfolio of the bidder for acquiring data using at least one scan agent and/or at least one bid proxy;

d. providing monitoring, by the at least one scan agent, of temporal progression of the at least one auction, and notifying the bidder and/or the at least one bid proxy of any changes affecting the bidder's programmed bid parameters of the at least one auction, wherein said monitoring by the at least one scan agent is performed at least close to ~~awithin a~~ awithin a time of auction closing window(TACW); wherein TACW is a function of at least one of: a current bid, a relative differential bid value, a minimum valid bid increment, auction hosting services site performance parameters, auction site telemetry information computed based on recent response times and network latencies as determined by the scan agent, and/or delay close counter measures;

e. enabling activating of the at least one bid proxy to programmatically bid on said at least one auction of said one of said at least

one online auction hosting services site, by emulating the bidder's input, including navigation and command input, to said at least one online auction hosting services site, the at least one bid proxy placing at least one bid, driven by said programmed bid parameters, until said at least one auction is either won or lost by a time of ~~close~~ auction close (TAC) of said at least one auction, wherein said bidding by the at least one bid proxy is ~~performed as close as possible to the time of the auction closing~~ begins at a start of said TACW and ends at TAC, and wherein said at least one scan agent determines whether or not a competitive bid has outbid a most recent bid of the bidder;; and

f. activating the at least one bid proxy to programmatically place at least one counter bid by the emulating of the ~~navigation and the command~~ input of the bidder for said at least one online auction hosting services site, if said competitive bid is determined to have been placed and detected before the time of auction closing of said at least one auction, wherein said at least one counter bid comprises computing and executing a valid higher bid for a forward auction or a lower bid for a reverse auction, that is within said programmed bid parameters, if said competitive bid has been made and accepted by the auction site that is higher for the forward auction or lower for the reverse auction than the most recent bid detected by the at least one scan agent.

2. (Withdrawn) The method of claim 24, wherein (c) comprises: automating a bidder's online, electronic search agent of specific electronic auctions on at least one targeted auction site comprising:

1. providing a programmable search agent, and/or through using an application programming interface (API) that enables programmatic retrieval of the auction information; from a node, that searches auction catalogs of a plurality of auction sites and identifies correlations between one or more product parameters, that can be at least one of entered and/or stored, and include at least one of a keyword, model

identification, synonym, unique identification, product classification, and/or price-bid range, and

one or more auctions that are listed in the auction site's catalog available via dynamic ~~price~~-competitive bidding using a number of electronic auction techniques including at least one of a Forward, a Dutch, a Yankee, and/or a Reverse auction technique.

3. (Withdrawn) The method according to claim 2, further comprising:

2. providing at least one additional programmable search agent searching said plurality of auction sites substantially simultaneously for one or more auctions; and
3. returning a found set of said one or more products for further review and selection by a bidder.

4. (Withdrawn) The method of claim 1, wherein (e) comprises:

executing one or more programmed bid proxies that are controlled by bid parameters comprising:

1. retrieving, using a scan agent, the current auction status within a time to auction close window (TACW) wherein said TACW spans a range of time beginning at a time calculated by subtracting an absolute time to start proxied bidding from an auction end time, and recalculating said TACW if the auction end time is extended, and ending with a time of the auction end time, wherein the TACW defines a period of time when a scan agent and a bid proxy work in tandem to place as many bids as necessary to win an auction within programmed bidding and/or algorithmically computed bidding parameters;
2. determining, by a scan agent, if parameters of the current auction status fall within a range of the programmed bidding and/or algorithmically computed bidding parameters;
3. computing, using the bid proxy, a next valid portfolio bid price-by at least one of adding a minimum valid price-bid increment to a

current auction status ~~price~~bid to compute a bid ~~price~~, if the current auction status ~~price~~bid is below a maximum ~~price~~bid for a forward auction, and/or, subtracting a minimum valid ~~price~~bid decrement from the current auction status ~~price~~bid to compute the bid ~~price~~, if the current auction status ~~price~~bid is above a minimum ~~price~~bid for a reverse auction, using the parameters of the current auction status;

4. activating a bid proxy, and placing a bid in accordance with an auction site specific protocol, and/or through using an application programming interface (API) that enables programmatic retrieval of the auction information, if the bid ~~price~~ is below the maximum ~~price~~bid for the forward auction or above the minimum ~~price~~bid for the reverse auction in the programmed bidding and/or algorithmically computed parameters, wherein the auction site specific protocol varies from site to site, and a basic protocol involves at least one of entering the bid ~~price~~, and/or authenticating as the bidder so the bid ~~price~~ can be correlated with an account of the bidder on the auction site and entered by the bid proxy on behalf of the bidder;

5. retrieving the current auction status, using the scan agent, to verify that a latest bid of the bidder has been accepted by the auction site;

6. repeating (2) through (5) until auction end, if the current auction status indicates that the bid ~~price~~ of the bidder has been rejected and/or outbid by another bidder; and

7. scanning the auction, at the auction end, to determine a win/loss status of the auction and storing the win/loss status in the portfolio of the bidder for later reporting to the bidder through a messaging system.

5. (Withdrawn) The method of claim 4, wherein (1) comprises at least one of:

A. computing the TACW based on a value derived from a data warehouse of the site for similar auctions, wherein the value derived is computed based on a minimum absolute time that

has been logged for prior successful auctions for a given auction site, wherein the minimum absolute time is a time till close (TTC) value; and/or

B. computing the TTC value using said probability analysis and auction site telemetry information computed based on recent response times and network latencies as determined by the scan agent.

6. (withdrawn) The method of claim 1, wherein (c) further comprises, if receiving a selection of a plurality of product auctions of the returned auctions, then placing the plurality of product auctions into the portfolio for use by a cascaded bid proxy; and providing cascaded bidding comprising:

1. executing a series of cascaded bids for an identical product in temporally sequential auctions according to the bidding parameters, wherein the bidding parameters comprise at least one of the following types:

a programmed bid value limit for one or more units of product;

an algorithmically calculated bid value limit based on prevailing market ~~prices-bids~~ for similar and/or identical products monitored by at least one of search and/or scan agents and/or stored in a data warehouse;

a directed programmed bid;

an algorithmically computed bid;

an explicitly defined set of programmed bidding parameters; and/or

an authorization to algorithmically compute the best market ~~price~~bid, wherein the best market ~~price~~bid is the lowest winning bid for a forward auction or the highest winning bid for the reverse auction.

7. (Currently Amended) The method according to claim 1, wherein (d) comprises:

1. notifying the bidder when a current ~~price~~bid of a targeted auction exceeds programmed bid parameters of the bid proxy, comprising at least one of:

a. examining with an internal scan agent, bid information stored in the portfolio of the bidder; and

b. sending information to the bidder using at least one of wired and/or wireless messaging technologies including at least one of an email, a page, a text page, an instant message, a short message system (SMS) message, a multimedia message system (MMS) message, and/or a communication, if a programmed bid with invalid bid parameters and/or other important information is detected.

8. (Previously presented) The method according to claim 1, wherein (d) comprises:

1. notifying the bidder when an auction has been won using at least one of a bid proxy of the bidder and/or a programmed bid,

wherein information is sent to the bidder using at least one of wired and/or wireless messaging technologies including at least one of

an email,

a page,

a text page,

an instant message,

a short message system (SMS) message,

a multimedia message system (MMS) message,

a communication, and

a hypertext link to bid information stored in the portfolio of the bidder.

9. (Withdrawn) The method according to claim 1, wherein (d) comprises:

scanning online auctions using a scan agent, comprising:

1. scanning content of a targeted auction site and extracting relevant auction status information including at least one of an open, a close, a maximum bid, a minimum bid, a last bidder, and/or other auction parameters and information using a scan agent that can be used to compute a valid bidder bid, comprising:

a. retrieving one or more programmed bids, using a scan agent, from one or more portfolios of one or more bidders;

b. extracting auction site identification from programmed bid information;

c. activating the appropriate scan agent based on the auction site identification and domain information of an auction site;

d. retrieving using the scan agent the latest auction site characterization information available for that auction site;

e. retrieving, using the scan agent, auction information from the auction site by at least one of navigating auction information content of the auction site, and/or through using an application programming interface (API) that enables programmatic retrieval of the auction information;

f. the current auction parameters are retrieved, analyzed and stored in entry for the auction in the portfolio of the bidder; and

g. performing further analysis by at least one of one or more site agents and/or processes.

10. (Withdrawn) The method according to claim 1 wherein (d) further comprises:

1. scanning status content of the auction site to track progress and/or status of a targeted auction prior auction close, the method comprising :

a. scanning, using the scan agent, all portfolios of all bidders for all active auctions in each of the individual portfolios of the bidders;

b. scanning slowly of the auctions listed in the each of the individual portfolios is performed for those auctions with TTC values that exceed a slow/fast scan threshold (SFST) value, wherein a slow/fast scan window (SFSW) is computed by subtracting the SFST value from each individual auction end time;

c. evaluating auction status information from those auctions that are before the start of the SFSW to determine if the bidder's bid parameters for a given auction are no longer valid, including messaging the reason for non-validity to the bidder using the messaging system, if the bid parameters are no longer valid for a given auction;

d. changing status of programmed bid from slow scan to fast scan, if the scan agent determines that a given auction falls within the SFSW;

e. scanning more frequently a programmed bid in fast scan mode in order to determine the current response time or latency of the auction site based on prevailing network traffic conditions; and

f. transitioning the programmed bid into active bid mode, if a bid is within the TACW, and execution of a bid proxy programmed bid that is controlled by bid parameters can be performed.

11. (Withdrawn) The method according to claim 1, wherein (d) further comprises:

1. distributing one or more scan agents and/or one or more search agents to distributed network nodes including at least one of a server, a workstation, and/or a peer device and executing the scanning and/or searching process (peer agent) from that node in response to high loading conditions on the master node and/or counter-measures enabled by the auction site, a method comprising:

a. distributing and activating on peer nodes a copy of the agents involved in the bidding process, if at least one of the scan agent, and/or any other agent, detects that the agent cannot access the auction site because the agent is not receiving a response to inquiries including at least one of a Post and/or a Get, wherein the peer nodes are previously configured as support nodes to the site and information about the peer nodes is stored in a directory on a master node at the site;

b. distributing, by the master node, bid proxies of auctions from the portfolio of the bidder and bid parameters to the designated peer node now assigned the task of bidding on a given auction by the master node;

c. executing on the peer node the auction bid proxy as would the master node without control from the master node; and

d. returning to the master node subsequent to auction end, and logging into the portfolio, the resulting win/loss/failed status of the auction.

12. (Withdrawn) The method according to claim 11, wherein (b) comprises:

1. distributing of the bid proxies to distributed network nodes including at least one of a server, a workstation, and/or a peer device, and executing a peer bid proxy process initiated from a node responsive to at least one of high loading conditions on a master node, another node, and/or counter-measures enabled by the auction site.

13. (Withdrawn) The method of claim 1, wherein (d) comprises:
adapting to changes in auction site layout and relevant auction site information,
comprising:

1. adapting to at least one of changes within content of an auction site and/or changes across the content of the auction site, wherein said content comprises at least one of a page, a link, a webpage, web content, a screen, data, a data feed, and/or data accessible by an application programming interface (API), so that one or more scan agents

and/or one or more bid proxies intelligently adapt to format and/or data type changes in the content of the auction site comprising:

- a. alerting by the scan agent of an intelligent process known as the information extractor when old information that is expected to be found within the auction site content is not found;
- b. examining the auction site content by the information extractor and comparing new content to a stored copy of the old content of known navigable content to determine if the old information is located elsewhere in the new content;
- c. modifying the parameters of the scan agent by the information extractor to identify where the old information is now located in the new content, if the old information is found in another location in the new content than it was in the old content;
- d. stepping through one or more previous and/or subsequent sets of content in a navigation path of content of the auction site, by the information extractor, and scanning new content to see if the old information has been moved to another set of content, if the old information is not found in the new content;
- e. modifying parameters of the scan agent, by the information extractor, to identify the new location of the old information, if the old information is found; and
- f. sending an alert to an administrator for the content and resulting navigation path, indicating a need to be retrained by the administrator, through programming, using at least one of a neural net engine and/or other artificial intelligence (AI) algorithm controlling the scan agent and/or another intelligent engine reprogramming mechanism, if the old information is not found.

14. (Previously presented) The method according to claim 1, wherein (b) comprises:

1. managing at least one of payment instruments, payment devices, contact, and/or financial status, of the bidder through an online, personalizable bidder profile account (account) for auction win settlement comprising:
 - a. presenting registration content to the bidder for the collection of contact information including at least one of an email, a physical mail address, a telephone number, a pager, and/or an alternative contact information, and/or financial instrument information;
 - b. creating an account information record in a database of the information and linking the account information record to any activated auction portfolios of the bidder; and
 - c. providing access for the bidder to access the account information record and/or modify the account information record as needed subsequent to bidder authentication.

15. (currently amended) The method of claim [[4]], wherein (e) comprises: executing one or more programmed bid proxies that are controlled by bid parameters comprising further comprising:

- 8.—accelerating the performance of the bid proxy by using network telemetry and/or statistical algorithms to improve the win probability of the bid, comprising:
 - a. testing, using a telemetry agent, the response time of an auction site to periodically ascertain temporal latency for various types of queries and/or commands;
 - b. optimizing balance between when to place an initial bid and when to win the auction at a best market ~~price~~bid, using information on the response time obtained during response time testing, wherein response time information is stored in an updateable profile for each auction site and is used by the bid proxy, and

wherein the telemetry information collected comprises at least one of a content type, and/or a transaction type including at least one of a query for auction status and/or a bid command, and/or a time span from a query to a response.

16. (Currently Amended) The method according to claim 24, further comprising:

h. receiving one or more persistent search agents that are programmed, persistent and operative to search one or more auction sites for product auctions of a desired product and providing returned auctions that a bid proxy can execute using at least one of a directed programmed bid, and/or an algorithmically calculated bid, wherein the one or more persistent search agents periodically search a list of a plurality of auction sites for product auctions that correlate with preference information stored in the portfolio of the bidder, comprising:

1. creating entries by the bidder for each kind of product of which the bidder desires to be notified if an auction for a product containing this description becomes available for bidding on any and all auction sites;

2. periodically searching, using the one or more persistent search agents, search services of the plurality of auction sites to see if a matching product can be found in listed auctions; and

3. sending, to the bidder, a link to a found auction communicated using at least one of wired and/or wireless messaging technology, if any matches are found; and

i. receiving at least one of definitions of programmed bidding parameters of the directed programmed bid to the bid proxy, and/or authorization of the bid proxy to algorithmically compute a lowest market ~~price~~bid

based on reviewing prevailing market ~~prices~~bids for similar products as determined by information stored in a data warehouse.

17. (Previously presented) The method according to claim 24, further comprising:

h. storing product preferences of the bidder for products, including preference information that can be used by at least one of a persistent search agent, and/or a bid proxy operating under at least one of directed programmed bidding, and/or algorithmically calculated bidding parameters.

18. (previously presented) The method according to claim 1, further comprising:

wherein a self-contained auction site comprises at least one of one or more auction services, one or more search agents, one or more scan agents, and/or one or more bid proxies within the same at least one of owner-operated infrastructure, marketing brand, and/or network domain.

19. (Withdrawn) The method according to claim 2, further comprising:

algorithmically controlled selection and/or prioritization of auctions returned by the one or more search agents based on 3rd party performance evaluation and/or ranking information (ranking) on an auction host,

wherein the auction host comprises a seller in a Forward auction or a buyer in a Reverse auction;

wherein a bidder has a preference for conducting auction transactions with auction hosts who are ranked better in terms of at least one of performance, quality and/or integrity when compared to other auction hosts;

wherein the bidder can set thresholds in the portfolio for filtering auctions from the one or more search agents that do not meet the minimum acceptable criteria for selection of any given auction based on ranking;

wherein a better ranking can be based on at least one of compiled quantitative data comprising at least one of historical transaction satisfaction ratings from prior auction transaction bidders, and/or 3rd party evaluation services, cumulative number of successful prior auction transactions, geographic region of auction and/or product source,

settlement currency, other secondary costs including at least one of shipping and/or subjective data including at least one of content of complaints filed on previously unsuccessful auction transactions, and/or the accuracy and/or depth of product information disclosed through the auction.

20. (Previously presented) The method according to claim 1, wherein (a) comprises: registering a new bidder on multiple auction sites through the use of a registration proxy that mimics the registration steps for each auction site using the master profile data of the bidder, comprising:

- a. receiving a bidder registration including a super-set of the information needed by multiple auction sites for proper registration of the bidder's information for a valid account on any given auction site;
- b. mimicking the actions of the bidder by a registration agent by navigating through the auction site's registration content and entering the appropriate contact and/or financial instrument information for the bidder; and
- c. prompting the bidder for manual entry for any validation steps using the bidder's email account and/or authentication credentials that cannot be performed through the auction site's content.

21. (previously presented) The method according to claim 1, wherein the logon credentials are provided by an independent 3rd party through a logon agent using at least one of proxied identification and/or digital certificates.

22. (previously presented) A computer readable medium embodying program logic which when executed performs the method of claim 1.

23. (Previously presented) A system for automating an interaction between a bidder and an electronic, variable, dynamic pricing online auction hosting service comprising:

means for receiving a registration of a bidder at an online, computer-implemented, Internet-based, web-enabled, bidder-centric bidding automation services application site, said bidder-centric bidding automation services application site being separate from any online auction hosting

services site, by creating logon credentials that are used to authenticate and authorize the bidder's use of services of the bidder-centric bidding automation services application site, and for receiving at least one bid auction hosting services site account ~~including logon credentials of at least one online auction hosting services site of~~ associated with the bidder;

means for receiving financial transaction instrument information of the bidder to fund said bidder-centric bidding automation services application site;

means for receiving at least one auction and one of said at least one online auction hosting services sites associated with said at least one auction and for storing said at least one auction in a bid portfolio of the bidder for acquiring data using at least one scan agent and/or at least one bid proxy;

means for providing monitoring, by the at least one scan agent, of temporal progression of the at least one auction, and notifying the bidder and/or the at least one bid proxy of any changes affecting the bidder's programmed bid parameters of the at least one auction, wherein said monitoring by the at least one scan agent is performed at least ~~close to~~ within a time of auction closing window (TACW), wherein TACW is a function of at least one of: a current bid, a relative differential bid, a minimum valid bid increment, auction hosting services site performance parameters, auction site telemetry information computed based on recent response times and network latencies as determined by the scan agent, and/or delay close counter measures;

means for enabling activating of the at least one bid proxy to programmatically bid on said at least one auction of said auction hosting services site by emulating the bidder's input, including navigation and command input, to said at least one online auction hosting services site, the at least one bid proxy placing at least one bid, driven by said programmed bidding parameters until said at least one auction is either won or lost by time of auction close (TAC) of said at least one auction, wherein said bidding by the at least one bid proxy ~~is performed as close as possible to the time of the auction closing, begins at a start of said TACW and ends at TAC,~~

and wherein said at least one scan agent determines whether or not a competitive bid has outbid a most recent bid of the bidder; and

means for activating the at least one bid proxy to programmatically place at least one counter bid by the emulating of the ~~navigation and the command~~ input of the bidder for said at least one online auction hosting services site, if said competitive bid is determined to have been placed and detected before the time of auction closing of said at least one auction, wherein said at least one counter bid comprises means for computing and executing a valid higher bid for a forward auction or lower bid for a reverse auction, that is within said programmed bidding parameters, if said competitive has been made and accepted by the auction site that is higher for the forward auction or lower for the reverse auction than the most recent bid detected by the at least one scan agent.

24. (Previously presented) The method of claim 1, further comprising:

g. receiving a search query from the bidder for a desired product from said at least one auction from a plurality of said at least one online auction hosting services sites including at least one of keywords, model identification, brand identification, synonyms, and/or unique identification, using at least one of a search agent, a persistent search agent, and/or a meta-search agent, and providing returned auctions, including retrieving current status of the product auctions and presenting the current status to the bidder.